

### **CLICCS C3 - Sustainable Adaptation Scenarios for Coastal Systems**

The overarching topic of all CLICCS C projects is to provide future scenarios taking into account the reciprocal interactions between natural and human systems. The specific approach of the CLICCS C3 project resides in the development of sustainable adaption scenarios for coastal areas, integrating different objectives such as coastal protection, conservation of the environment, marine resources exploitation and mitigation measures. For that purpose, C3 establishes integrated coastal system models accounting for both climate change impacts and major anthropogenic impacts onto coastal systems. In the applied for period, the project aims to investigate the impact of sea level rise and warming in the area of the German Bight and Elbe estuary onto the coastal and estuarine ecology by means of coupled physical and biological unstructured modelling. In the area of the Pearl River estuary, the effect of land reclamation onto the estuarine circulation will be investigated also by means of the unstructured modelling. For the North Sea and Baltic Sea region a coupled physical-biological model will serve to simulate and discern between the natural and anthropogenic pressures driving long term changes in the regional ocean and at the coasts taking into account in particular the impact of riverine forcing onto the marine ecosystem. This project is part of the Cluster of Excellence EXC 2037 'CLICCS - Climate, Climatic Change, and Society' – Project Number: 390683824 funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy.